

METHOD AND APPARATUS FOR INDUCING SPUTUM SAMPLES FOR  
DIAGNOSTIC EVALUATION

ABSTRACT OF THE DISCLOSURE

An apparatus for inducing sputum samples for diagnosing pulmonary disorders, especially as it relates to detection of early stages of lung cancer. The apparatus is comprised of a pneumatic chest compression vest, a pneumatic pressure generator, and a mouthpiece connected to a nebulizer. Sputum samples are induced by applying an oscillating force to the chest via the pneumatic chest compression vest and pressure generator, while simultaneously providing an aerosolized solution (such as normal or hypertonic saline) via the nebulizer while the patient is standing. The sample is subsequently evaluated to ascertain a patient's risk of or the presence of a pulmonary disorder such as lung cancer.

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